MARSHALL STAR

Marshall Space Flight Center — Jan. 27, 2000

"We bring people to space — We bring space to people"

Shuttle Endeavour launch expected on Monday

A mission to map regions that are home to 95 percent of the world's population is scheduled to launch no earlier than Monday.

The 11-day Shuttle Radar Topography Mission (SRTM) will employ a measurement technique called interferometry to gather images of a large majority of the Earth's surface for use by Earth scientists, military planners, civilian commercial aviation, weather forecasters and others. In order to gather these images, two antennae will be used, including one on a 197-foot mast that will be the largest fixed structure ever flown in space.

The crew consists of Commander Kevin Kregel, Pilot Dom Gorie and Mission Specialists Janet Kavandi, Janice Voss, Mamoru Mohri of the Japanese Space Agency and Gerhard Thiele of the European Space Agency.

Photo by Doug Stoffer, NASA/Marshall Space Flight Center

Black History Month

Terry Morgan of the U.S. Postal Service, left, shows Dawn Cross, chairwoman of this year's Black History Month celebration, a stamp commemorating Patricia Roberts Harris, the first African-American woman to be appointed to a U.S. cabinet post. The stamps go on sale Friday. For more information on Black History Month activities, see story on page 3.

NASA selects eight proposals for next level of research

NASA has selected eight promising research proposals for negotiation of Phase 2 contract awards for NASA's Small Business Technology Transfer Research (STTR) program.

Phase 2 continues development of the most promising, previously selected Phase 1 projects. Selection criteria include scientific and technical merit, future importance and eventual value of the innovation to NASA, company capabilities and commercial potential. Funding for Phase 2 contracts may be up to $500,000 for a two-year performance period.

A total of 23 Phase II proposals were submitted by contractors completing Phase I projects as part of their 1998 awards. All proposals were peer-reviewed for both technical merit and commercial potential. The combined award total for the eight Phase 2 contracts is expected to be approximately $4 million.

The STTR program is designed to stimulate technological innovation, help small businesses become better-qualified to assist NASA in its research and development, and increase private commercialization of federally funded research. The program also requires small businesses to conduct cooperative research and development by partnering with a research institution.

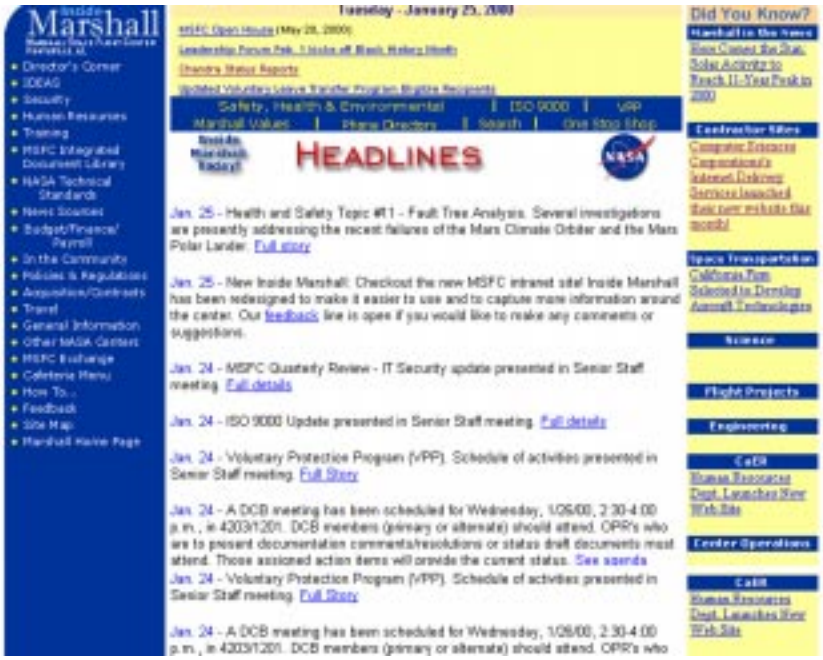
The goals of the STTR program are to stimulate technological innovation, increase the use of small business (including women-owned and disadvantaged firms) in meeting federal research and development needs, and increase private-sector commercialization of federally funded research results. Two of the eight companies being announced today are either disadvantaged firms or women-owned firms.

The NASA STTR Program Management Office is located at NASA's Goddard Space Flight Center in Greenbelt, Md., with executive oversight by NASA's Office of Aero-Space Technology, NASA Headquarters in Washington, D.C. Individual STTR projects are managed by the NASA field centers. A listing of the selected companies can be found on the Internet at: http://sbir.nasa.gov

"A Clean Corridor IS a Safe Corridor"
— Safety slogan submitted by
Judy Milburn, QS10

'Inside Marshall' gets new look

Check out the new Marshall intranet site! "Inside Marshall" has been redesigned to make it easier to use, and to capture more information around the Center. See it at: http://inside.msfc.nasa.gov/INSIDE



Health courses are available for your next meeting

The Physical Exercise Program staff is available to attend your group's next "Safety" meeting — make it a "Health" meeting.

Pick any of the following topics and receive a 1-hour education on a subject to enhance your life. Call Pat Mirandy at 544-7570, or Mike Clark, 544-3337, to schedule the class. This service is available to both NASA and on-site contractor personnel.

Cholesterol Crunch, learn to read and understand your blood profile, good cholesterol versus bad cholesterol, effects of triglycerides on the body, importance of blood sugar (glucose) and much more. Learn ways to take charge of your blood profile.

Heart Attacks Kill, the number one sign of a heart attack is "Sudden Death." Learn the signs and symptoms of a heart attack. Know what you can and cannot control in decreasing the risk of developing a heart attack.

Exercise and Aging, learn to slow down the aging process through exercise. Study the effects of exercise through the stages of life.

Fat Facts, learn the up side and down side of body fat. Insightful lecture to learn to lose weight effectively and safely through life style changes. Learn of risk of being over fat.

Exercising In Your Comfort Zone, learn the importance of monitoring the climate you exercise under, when to avoid the humidity, how to stay warm but safe while exercising, and how to dress for all seasons.

Understanding Diabetes, designed to educate on the importance of monitoring blood sugar, what effects blood sugar levels, and how to use exercise to bring blood sugar levels to a steady-state.

Absolutely Abdominal, learn about the structure of the abdominal muscles, what encompasses a complete abdominal program and guidelines to follow to assure that the individual is getting the most out of their abdominal exercises.

Five-Minute Workouts, in this class, participants are taught exercises that can be done in 1-5 minute increments that will enhance strength and flexibility and also tone up muscles.

Stretching Your Limits, class is designed to teach that stretching is one of the most important parts of one's program because it can prevent injuries, decrease muscle soreness, and ultimately improve one's joint range of motion and function.

The Importance of Protein, designed to teach others the value of protein, and why too little or too much can be damaging.

Life on Chutes and Ladders, learn how to respond to life's curve balls by employing skills that will teach you to be more in control of your behavior, thus fostering a better feeling of self.

Preventing Exercise Burnout, discover ways to keep exercise lively and challenging. Learn effective tips to make working out enjoyable.

Wrestling Control of Your Eating, learn skills to help you look at food differently, be in control of the foods you choose to eat, instead of feeling like food is controlling your life.

Internal Attitude Traps, gain control of your attitude, at home and at work. This class will give many thoughts and ideas of how you can reverse poor attitudes and become a happier person from within.

Stress Busters, we are never "stress free" so learn how to employ both mental and physical skills to channel stress in a more positive and productive way.

Interpreting the Food Guide Pyramid, learn about the Food Guide Pyramid, how and why it was developed and what it means to you to use as a guideline to find out what your individual body needs to achieve that healthy balance.

Black History Month

Marshall Center plans special events in February

Several special events will mark Black History Month in February at the Marshall Center.

A program or activity will be featured each week and displays will be set up around Marshall during the month. All of the activities will be open to the public.

The celebration, "Heritage and Horizons: The African American Legacy and the Challenges of the 21st Century," begins with a Leadership Forum from 1:30-3 p.m. Tuesday in Morris Auditorium. It will include a panel of community leaders, business people, elected officials and government agency representatives. They will discuss what makes effective leaders and the challenges they will face in the future.

Leadership Forum panelists include: Fred Gregory, NASA's associate administrator for Safety and Mission Assurance; John Stallworth, former Pittsburgh Steeler and owner of Madison Research; James Jennings, deputy director of Kennedy Space Center in Florida; Huntsville Mayor Loretta Spencer; Jim Reynolds, procurement director for the Corps of Engineers; Dr. Helen McAlpine, recently retired assistant superintendent of Huntsville City Schools; and Amanda Goodson (moderator), director of Marshall's Safety and Mission Assurance Office.

A "lunch and learn" program will be held at 11:30 a.m. Feb. 8, in dining room 1102 of Bldg. 4203. It will feature Missouri Torrence, author of "Dulcina DeBerry: Door Opener," a book about the first African-American library in Madison County.

A science fair for students in grades 6-8 will be from 9 a.m.-4 p.m. Feb. 17, in the Bldg. 4203 cafeteria. It will highlight the disciplines of biology, chemistry, engineering, optics and physics. Students from city, county and private schools in Madison, Limestone and Morgan counties will display their science projects, tour the Marshall Center and learn more about NASA's work and mission.

Marshall employees will be able to dine during Jazz Café while listening to the sounds of Marshall's own Kim Jones from 11:30 a.m.-12:30 p.m. on Feb. 18 in the cafeteria of Bldg. 4203.

The celebration's closing ceremonies will be held from 9-10 a.m. Feb. 23, in Morris Auditorium. Don Campbell, director of NASA's John Glenn Research Center in Cleveland, Ohio, will speak. In addition, NASA leaders will recognize winners of a poster contest for grades 3-5 and an essay contest for grades 9-12. The students are from city, county and private schools in Madison, Limestone and Morgan counties.

For more information about the Marshall celebration, call Dawn Cross at (256) 544-1835.

NASA scholarship applications available; deadline to apply is March 31

Applications are being accepted for six scholarships to be awarded by the NASA College Scholarship Fund Inc.

The fund, set up in 1982 through an endowment by author James Michener, provides college scholarships for qualified dependents of current or retired employees of NASA and dependents of current reimbursable detailees to NASA.

In addition, college scholarships may be awarded to full-time students who are dependents of former NASA employees or reimbursable detailees to NASA who died while employed by NASA.

Six $2,000 scholarships will be awarded for the 2000-2001 school year. The renewable scholarship is for a maximum of $8,000 over six calendar years.

Applicants must be pursuing a course of study in the science and engineering fields that will lead to a recognized undergraduate degree at an accredited college or university in the United States.

Since 1984, eight Marshall dependents have received NASA College Scholarship Fund scholarships. Recipients include Constantine Costes, Sandor Lehoczky, Darcie Reasoner, Jack Loose, Neelaksh Kumar Varshney, Katie Lynn Davis, Jennifer Kiessling and Yvonne Parisa.

Contributors to the NASA College Scholarship Fund include the Freedom Forum, the Johnson Space Center Chapter of the Alumni League and NASA employees through the Combined Federal Campaign.

Application forms and details are available in Bldg. 4200, room 101 from Janie Crawford or at the NASA Exchange in Bldg. 4752, see Monica Hill. Deadline for submitting applications is March 31.

For your convenience, an electronic version of the scholarship information and the application form may be obtained at the following Internet site: http://hro.jsc.nasa.gov/Announce/scholarship/nasa_college_scholarship_fund.htm

Census 2000

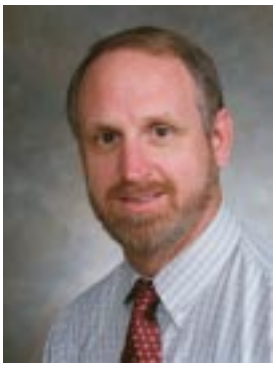
Before applying, check fine print on buyouts

The Census Bureau is looking for up to 3 million census takers for Census 2000, and both current and retired federal employees have been invited to apply. The Census Bureau can waive dual compensation rules that would normally require offset of salary for current federal employees and offset of retirement benefits for former federal employees. However, Census Bureau guidance is that former federal employees who accepted a buyout within the last five years will be required to repay their full buyout incentive if they accept an appointment with the bureau. This requirement applies even if the appointment is only a 6-8 week short-term job with the census.

Key Personnel Announcement

Thomas "Tom" F. Fleming has been named associate director for management of Marshall's Science Directorate.

Fleming has served as deputy manager of the Business Office for the Science Directorate since his arrival at Marshall in June 1999. He began his career with NASA as a co-op student at Kennedy Space Center, Fla., in the Materials Test Lab in 1972.



Tom Fleming

Following college, Fleming served as vice president of Universal Identification Systems until he returned to NASA at Kennedy Space Center in 1982.

He worked for several years as a hardware and software designer and systems engineer and later as project manager for many projects in support of the Shuttle Program at Kennedy. Additionally, he served as technical assistant and adviser to the director of Ground Engineering.

In 1996, Fleming began his most recent position with NASA before coming to Marshall, as manager of the Project Controls Office for the Checkout and Launch Control System project. That system will replace the aging Launch Processing System used by the Shuttle program today. In this position, Fleming was instrumental in establishing and training the organization in project management and control activities and processes.

Full-scope ISO 9000 audit delayed until November

Originally, the Marshall Center was scheduled to be registered to ISO 9000 for the whole Center (increased scope) by May of this year with a pre-assessment to be performed in February.

"Due to the multiple initiatives being implemented here at the Center, and in an effort to provide some relief to our people, management decided to delay our audit for the increased scope to November of this year with a pre-assessment in August," said Don Miller, Marshall's ISO 9000 coordinator.

Initiation and revision of procedures to implement the increased scope activities are almost completed. The delay will allow for more time to perform training, implementation of the new changes, performance of internal audits and make corrections as necessary.

The regular 6-month surveillance to maintain our present registration continues. Our next audit will be March 6-8 with a follow-on audit in August.

Marshall vacancies being posted on OPM Web site

External vacancy announcements for Marshall are being posted on the Office of Personnel Management (OPM) Web site at: www.usajobs.opm.gov

To view the vacancies, click on "current job openings." Then click "agency job search." Type in NASA. Finish by clicking "George C. Marshall Space Flight Center."

This will pull up all recruiting bulletins that Marshall has loaded on the Web site. The applicant will need to read through the recruiting bulletin for application instructions.

The OPM job line telephone number is (256) 837-0894.

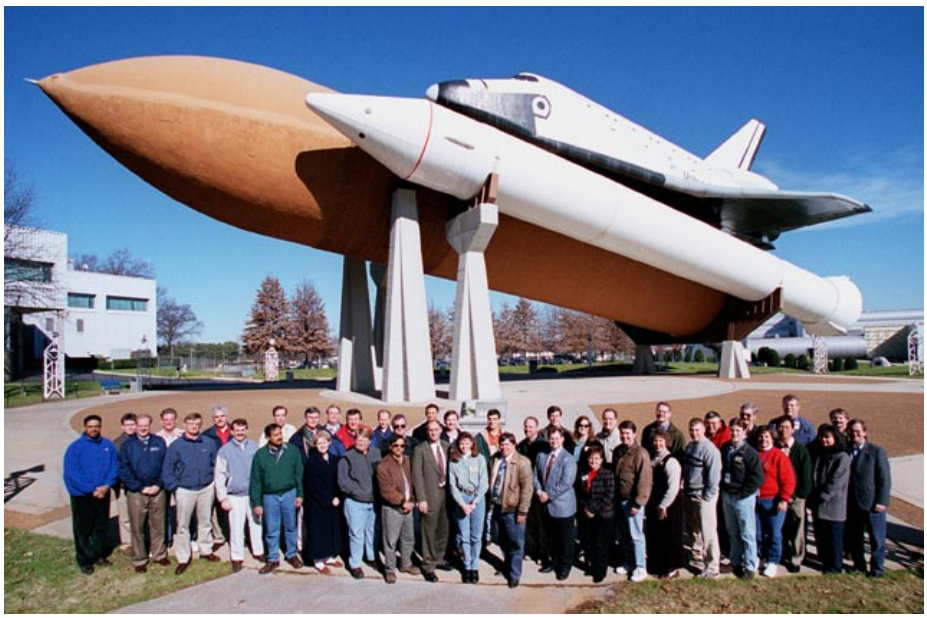


Photo by Terry Leibold, NASA/Marshall Space Flight Center

New Employees

The new employee orientation held at the Huntsville Marriott Jan. 12-14 welcomed 52 to the Marshall Center team.

Local students, Marshall engineers team up to design, build robot

A team of Lee High School students from Huntsville, Ala., will work alongside Marshall engineers on a fast-track project to build a robot for an upcoming competition.

For six intense weeks, the students will work with Marshall engineers, parents, faculty from the University of Alabama in Huntsville, Weddendorf Design, Mevatac Corporation, Redstone Arsenal's Aviation and Missile Command and Lee High School teachers to brainstorm, design, construct and test their "champion robot."

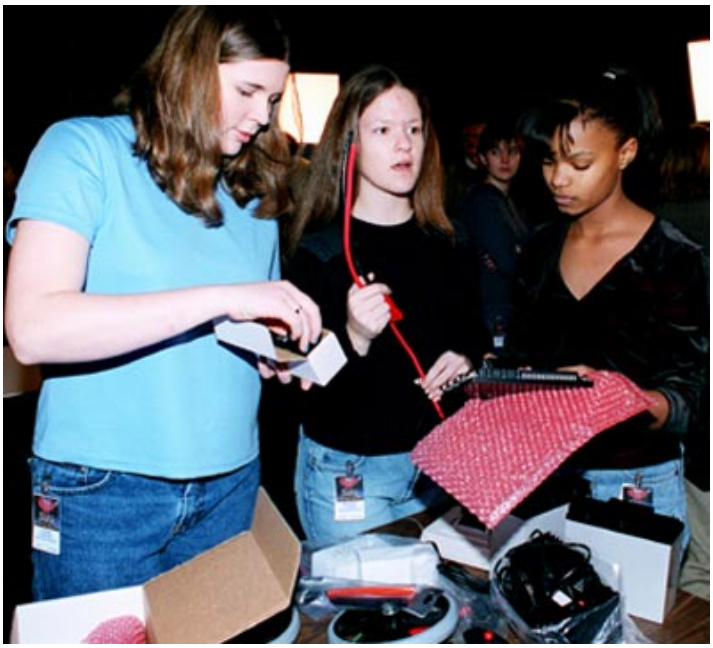
In April, their robot will compete with robots created by more than 300 teams nationwide. Lee High School is participating through a grant from Marshall's Education Programs Department.

The robotics competition is organized annually by the non-profit corporation FIRST (For Inspiration and Recognition of Science and Technology). Its mission is to generate an interest in science and engineering among students.

NASA, a major supporter of FIRST, is sponsoring more than 100 nationwide teams and hosting four regional competitions. The team from Lee High School will compete regionally March 16-18 in Houston.

Alfonza Darnell, left, and Natalie Darnell look over parts they will use to build a robot for the upcoming FIRST (For Inspiration and Recognition of Science and Technology) competition.

Geoffry Beech, center, Marshall's lead engineer for the project, explains how the parts will go together to build a robot. Looking on from left are Dr. David Hampton, a professor with the University of Alabama in Huntsville; Aaron Anderson; Jeff Hunger and Ron Spindelilus.



Lee High School students Leeanne Carter, left, Meaghan Lykins, center, and Shanika Sanders get organized before getting started.

Photos by Emmett Given, NASA/Marshall Space Flight Center

Quick Facts about FIRST

- The FIRST Robotics Competition is an annual event that began in 1992. Last year, 199 teams participated.
- The competition changes each year, to present student teams with new challenges. This year's robots will compete in matches that combine goal-scoring elements of basketball, the blocking and contact of football, and the strategy of chess.
- Following 10 regional competitions, the national championship will be held April 6-8 at Walt Disney World's EPCOT Center in Orlando.
- This is the first time Lee High School in Huntsville is participating.
- More information about FIRST can be obtained on the Web at: http://www.usfirst.org

Marshall scientist on team setting skydiving record

by Debra Valine

When most people were preparing to celebrate the December holidays, one Marshall scientist went to Ubon, Thailand, as part of a team determined to break the world skydiving record.

On Dec. 16, 282 skydivers joined together in one huge formation, jumped from four C-130 aircraft , and maintained the formation for 7.11 seconds — setting a new world record. The previous record was set in 1998 with 246 skydivers in Chicago.

Dr. Fred Leslie, who flew as a payload specialist aboard Space Shuttle Mission STS-73, is a research scientist in Marshall's Microgravity Science and Applications Department. He was one of the skydivers from more than 30 countries who traveled to Thailand to attempt the record-breaker. The event was part of an aerial celebration marking the 72nd birthday of Thailand's King Bhumibol Adulyadei.

Leslie also jumped with the record-breaking team in Chicago. The 48-year-old Irving, Texas, native has jumped 4,400 times since 1970. He was 18 years old when he went to watch a friend jump, and "liked it." He also enjoys flying, scuba diving, weight training and running.

Courtesy photos

Marshall scientist Fred Leslie stands in front of the crowd gathered in Ubon, Thailand, in December to watch the World Team attempt to break a skydiving record.

Breaking the record was not easy, Leslie said. There is a lot of engineering that goes into designing the formation, calculating rate of descent, weight of parachutists, etc.

"One of the things that makes this difficult is the certification process. The FAI (Federation Aeronautique Internationale) certifies all air-related records. The rules state that the formation has to be complete and held for three seconds. Everybody who goes out — except the photographers — has to be in the formation. You cannot send out 300 people and hope to get 282 in the formation.

"Setting this record was actually kind of a squeaker," Leslie said. "After two weeks of jump attempts, the commitment for the aircraft expired, and they were scheduled to leave for other duties. The organizer of the event, B.J. Worth, called the General of the Royal Thai Air Force and asked if we could have another couple of jumps the next day, which the general agreed to. We set the record with the first jump."

Leslie has been involved with the World Team since 1994.

"The first jump was in Bratislava. I was invited to go, but I had to wave off that attempt because I was scheduled to fly on Shuttle mission STS-73." Leslie conducted microgravity experiments on Spacelab in 1995.

"World Team No. 2 went to Russia, and I went on that one," he said. "The weather was awful. We had seven attempts, but we did not get the record."

Each attempt to break a record is set up by different organizers, and individual skydivers are invited to jump on different teams. "It's a friendly competition," Leslie said. "The team from Chicago wants to try to break the 282 record next August, but that will be hard. I have been invited, and probably will go."

The writer, a contractor employed by ASRI, is the Marshall Star editor.

Photo by Simon Ward

On Dec. 16, 1999, 282 skydivers maintained the formation for 7.11 seconds to set the record.

'Ask A Scientist'

Dr. Craig Kundrot, a biophysicist at Marshall, chats online with students from more than 20 schools across the nation as part of the Center's "Ask A Scientist" program. Kundrot recently answered questions about microgravity protein crystal growth experiments onboard Space Shuttle missions. "They asked about the benefits, cost and types of projects we're working on," Kundrot said. "From some of the 'thank you' e-mails I've received, I think it was a very educational session." "Ask A Scientist" and its sister program, "Ask An Astronaut," link Marshall and more than two-dozen middle and high school classrooms nationwide via live Internet voice feeds for question-and-answer interviews with NASA astronauts, scientists and engineers.

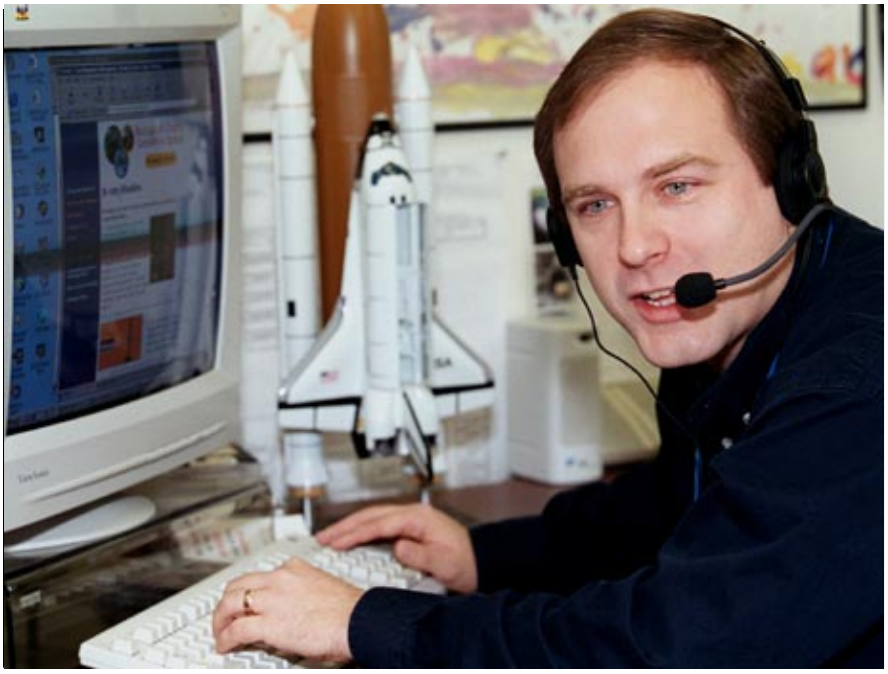


Photo by Doug Stoffer, NASA/Marshall Space Flight Center

Multi-Element Integrated Test checks various ISS systems

The Multi-Element Integrated Test End-to-End test is a collaborative effort between Marshall, the Johnson Space Center in Houston, the Kennedy Space Center in Florida, Goddard Space Flight Center in Greenbelt, Md., and White Sands, N.M., in which various International Space Station systems are verified in a flight-like or end-to-end fashion.

Photo by Doug Stoffer, NASA/Marshall Space Flight Center

Teledyne Brown Engineering contractors from left Robbie Hawkins, a payload rack officer; Valeta Glover, the Payload Operations Integration Center database lead; and Kim Knobel, a data management coordinator, conduct the Multi-Element Integration Test from their workstations in the Ground-based Communication Center at Marshall.

"The test started Jan. 18, and finished Tuesday," said Van Woodruff, Payload Operations director in the Flight Projects Directorate. "The end-to-end test also verifies the capabilities of the Space Station control centers, namely the Mission Control Center in Houston and the Payload Operations Integration Center at Marshall."

Major objectives of the test for the Marshall Payload Operations Integration Center are to:

- Verify receipt and processing of Ku- and S-band telemetry from the U.S. Lab at Kennedy Space Center.
- Verify the capability to route telemetry to Johnson's Telescience Center.
- Verify receipt of video from the U.S. Lab.
- Verify capability to command and control various U.S. Lab core and payload systems.
- Verify the space-to-ground voice link between the Payload Operations Integration Center and the U.S. Lab.

Employee Ads

Miscellaneous

★ Maytag washer, almond, $100. 881-1069
★ Large desk, $100; desk, $40; sofa sleeper, $150; Barbie doll, $30; car phone, $25. 534-0939
★ Boys clothes, Gymboree, Oshkosh, sizes 2-7, $1-5; boys Levis size 6, $8; ladies 10-speed, $25. 533-5942
★ 55-gallon heavy-duty industrial strength drums, plastic, water-tight, air-tight, $40 each. 882-1892
★ Mac Classic starter computer w/various programs/games, $100 obo; Apple Laser Writer printer, 4ppm, $100. 864-0465
★ Antique tredle sewing machine, $100, Graphinola, $300. 859-2295
★ Infant carseat/carrier, $15; exersaucer, $20; swing, $10. 828-0060
★ Nordic Track Achiever ski exerciser w/workout computer, wooden framing & skis, $300. 772-1974
★ Two Evenflo infant car seats, $25 each; Century bedside bassinet, pink, $35. 882-2076
★ IBM PC monitor, 17", new in box, $225 obo. 922-0958
★ Radio-controlled (RC) airplanes w/accessories, large inventory. 582-0869 after 6 p.m.
★ Magnavox TV, 27", $60; Pioneer A/V receiver, cassette, CD w/integrated remote, $160. 882-9042
★ Running boards for old body style Pathfinder, $125; spare tire cover, Nissan Pathfinder, $35. 586-9813

Vehicles

★ 1991 Nissan Sentra XE, 186K miles, air, am/fm cassette, cruise, $2,000 obo. 922-0606
★ 1997 Ford Explorer XLT, midnight blue, 4.0L, all options, 50K miles, $18,000. 883-9741
★ 1999 Silverado X-cab, Z71, LT, 3rd door, V-8, loaded, leather, CD, 14K miles, $28,400 obo. 233-1294
★ 1998 ShadowCruiser 11' truck camper, built-in generator, a/c, hot water heater, all options, $15,000. 922-1169
★ 1999 Mustang, metallic silver, 4K miles, 6-cyl., 5-speed, $16,500 negotiable. 961-1354
★ 1992 Chevrolet Lumina, white, 4-door, automatic, PL/PW, 57K miles, $5,200. 586-2852
★ 1992 Isuzu Trooper LS, 5-speed manual, 4WD. 722-8583
★ 1978 Chevy Bonanza, LWB pickup w/toolbox, V-8, 134K miles, $1,700. 536-8692
★ 1988 Honda Accord LX, 5-speed, new air conditioner, battery, brakes, 151K miles, $3,000. 830-9331
★ 1984 Jaguar XJ6, 172.7K miles, service records, never wrecked, driven daily, $3,150 obo. 881-5411

Center Announcements

☞ ***NASA/MSFC Retirees Association —*** The annual dues of $30 was due and payable on Jan. 1. If you have not paid, send your check to the Association at: P. O. Box 4492, Huntsville, AL 35802, Attn: Bob Pace.

☞ ***Retiree Reception —*** A reception honoring Flight Projects Directorate employees who left government service during 1999 will be held from 2-4 p.m Tuesday in the Bldg. 4610 cafeteria. Employees being honored are: William Humphries, FD01, Paul Hillard, Robert Jernigan and Harvey Shelton, FD21, Richard Hargrove, FD23, Charlie Jones, FD30, John Reaves, FD31, Robert Little, FD32, Lori Self, FD33, Kenneth Smith, FD36, and Bernice Swain, FD41.

☞ ***Photo Lab Retirees Meet —*** Photo Lab retirees will meet at 9:30 a.m. Tuesday at Shoney's on University Drive. For more information, call Chuck Allen at 852-0917.

☞ ***MARS Valentine Dinner Dance —*** The MARS Dance Club is sponsoring a Valentine dance at 6:30 p.m. Feb. 12 at the Von Braun Center West Exhibit Hall. The semi-formal event will feature ballroom music by the Charlie Lyle Combo. Socializing will begin at 6:30 p.m., buffet dinner at 7 p.m. and dancing from 8-11 p.m. Tickets are $19 per person with a $3 discount for members. They can be purchased from Tamara Landers at 544-6818, Pat Sage at 544-5427, Ed Ogozalek at 837-1486, Linda Kinney at 544-0563, Bob Williams at 544-3998, and Hugo Berry at 544-3525. To reserve a table for eight, call Woody Bombara at 650-0200.

☞ ***American Express Vacation Office Closed —*** The American Express vacation office at Marshall will be closed through Feb. 2. For vacation travel needs during this period, call American Express Travel at Kennedy Space Center at 1-800-348-4204.

☞ ***MARS Ballroom Dance Club —*** The MARS Ballroom Dance Club will offer single swing and bolero lessons on Jan. 31 in the Parish Hall of St. Stephen's Episcopal Church at 8020 Whitesburg Dr. Intermediate classes start at 7 p.m. and beginner classes at 8. The lessons will be taught by Joe Whorley and cost $4 per person per night. For more information, call Linda Kinney at 544-0563.

☞ ***MARS Ballroom Dance Club —*** The MARS Ballroom Dance Club will offer waltz and cha-cha lessons on Feb. 7, 14, 21, and 28 in the Parish Hall of St. Stephen's Episcopal Church at 8020 Whitesburg Dr. Intermediate classes will start at 7 and beginner classes at 8. The lessons will be taught by Don Worrell and cost $6 per person per night. For more information, call Linda Kinney at 544-0563.

☞ ***Instrumentation Division Astrionics Lab Retirees Meet—*** Retirees and friends of the Instrumentation Division Astrionics Lab will meet at Redstone Golf Course "Coffee Shop" at 11 a.m. Tuesday. The group will continue to meet on the first Tuesday of each month.

☞ ***Lunar Nooners Toastmasters —*** The NASA Lunar Nooners Toastmasters Club meets Tuesday at 11:30 a.m. in Bldg. 4610 cafeteria conference room. All Marshall employees, contractors and friends are invited to attend. For more information, call Lee Johns at 544-5142.

☞ ***1999 Marshall Picnic T-shirts —*** If you have not picked up your 1999 Marshall Picnic T-shirt, please do so by Feb. 11 by calling Chip Sullins at 544-7335. After Feb. 11, the T-shirts will be donated to the NASA Exchange. No refunds will be given.

☞ ***VPP Rally —*** The Voluntary Protection Program (VPP) volunteers, points of contact and Center employees are invited to the VPP Rally to be held from 8:30-10:30 a.m. Feb. 3 in Morris Auditorium. This is an opportunity to learn the basics of Marshall's Safety Program/VPP, what you can do to help, status of the action teams and upcoming events. VPP posters, magnets, etc., will be availalbe. For more information, call Kristie Buhmann at 544-7474.

☞ ***Drivers and Tour Guides Needed —*** The U.S. Space & Rocket Center is looking for retired persons for part time or seasonal employment as bus drivers or tour guides. The center will assist in obtaining commercial drivers licenses. Upon completion of paid training, you will conduct bus tours of the Marshall Center. Applicants should immediately apply at the Administration Office entrance at the U.S. Space & Rocket Center, Rt. 565 South, 1 Tranquility Base, Huntsville, Ala.

☞ ***Fashion Show —*** Designers Against Breast Cancer will hold a Fashion Show Extravaganza at 7 p.m. March 4 at the Huntsville Museum of Art. Tickets are $20. Proceeds go to the American Cancer Society. For ticket information, call 539-0001 or 536-1855.

☞ ***Marshall Open House —*** Marshall's Open House will be held from 9 a.m.-6 p.m. May 20. Admission is free.

MARSHALL STAR
Vol. 40/No. 20

Marshall Space Flight Center, Alabama 35812
(256) 544-0030
http://www1.msfc.nasa.gov

The Marshall Star is published every Thursday by the Internal Relations and Communications Department at the George C. Marshall Space Flight Center, National Aeronautics and Space Administration. Contributions should be submitted no later than Monday noon to the Marshall Internal Relations and Communications Department (CD40), Bldg. 4200, room 101. Submissions should be written legibly and include the originator's name. Send electronic mail submissions to: intercom@msfc.nasa.gov The Marshall Star does not publish commercial advertising of any kind.

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and Communications — Norman Brown
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U.S. Government Printing Office 1999-533-127-80095